

FIRST RECORD OF THE LARVAE OF *HIPPOTION ROSETTA* (SWINHOE, 1892) (LEPIDOPTERA: SPHINGIDAE) FEEDING ON THE FOLIAGE OF *NEPENTHES* (NEPENTHACEAE) IN CAPE YORK PENINSULA, QUEENSLAND

GARY W. WILSON^{1,2}, DAVID C.F. RENTZ^{1,2} and F. VENTER¹

¹*Australian Tropical Herbarium, James Cook University, Cairns, Qld 4970*

²*College of Marine and Environmental Sciences, James Cook University, Cairns, Qld 4970*

(Email: gwwilson064@gmail.com)

Abstract

The larva of *Hippotion rosetta* (Swinhoe, 1892) is recorded for the first time feeding on the foliage of *Nepenthes mirabilis*, *N. tenax* and *N. rowaniae* (Nepenthaceae) in northern Cape York Peninsula, Queensland.

Introduction

Hippotion rosetta (Swinhoe, 1892) is a widespread species of hawk moth occurring from Pakistan, through SE Asia, to northeastern Australia (GBIF 2013). The Atlas of Living Australia (ALA 2013) indicates eight collections of it from Australia, all of adults, extending as far south as Townsville, Queensland. Adults feed on species of Rubiaceae and Verbenaceae, including *Lantana*, *Ixora* and *Duranta* where these occur as exotic species, but there are no previous records of its larval host plant in Australia.



Fig. 1. Larva of *Hippotion rosetta* (Swinhoe) feeding on *Nepenthes tenax* at Jardine Swamp, Cape York Peninsula (Photo: G.W Wilson).

Discussion

During studies of *Nepenthes* (Nepenthaceae) in the Cape York bioregion, larvae of a lepidopteran (Fig. 1) were found feeding on the foliage of *Nepenthes mirabilis*, *N. tenax* and *N. rowanae* at Jardine Swamp in northern Cape York Peninsula. These feeding records include all three species of *Nepenthes* now recognised from Australia (Clarke and Kruger 2005, 2006, Linnaeus 1753). A larva on *N. tenax* returned on fresh foliage to Cairns pupated, resulting in an adult moth identified as *Hippotion rosetta* (M.S. Moulds pers. comm.).

This is the first record of a sphingid species using *Nepenthes* as a larval food source. Other records of lepidopteran larvae feeding on *Nepenthes* are of *Autoba radda* (Swinhoe) (Noctuidae) on *N. rafflesiana* (Robinson *et al.* 2001), *Virachola* sp. (Lycaenidae) as seed borers of *N. ampullaria* in Borneo (Clarke 2006) and *Atrophaneura polyeuctes* (Doubleday) [as *Parides polyeuctes*] (Papilionidae) on an undetermined *Nepenthes* sp. (cited, but questioned, by Igarashi and Fukuda 1997); the last record is almost certainly an error (D.L. Hancock pers. comm.).

Acknowledgment

We thank Dr Max Moulds for identifying *Hippotion rosetta* and providing literature references.

References

- ALA (Atlas of Living Australia). 2013. *Hippotion rosetta*. Accessed 30 June 2014. Available at: <http://www.ala.org.au>
- CLARKE, C.M. 2006. *Nepenthes of Borneo*. Natural History Publications (Borneo), Kota Kinabalu.
- CLARKE, C. and KRUGER, R. 2005. *Nepenthes rowanae* (Nepenthaceae), a remarkable species from Cape York, Australia. *ICPS Newsletter* 34(2): 36-41.
- CLARKE, C. and KRUGER, R. 2006. *Nepenthes tenax* C. Clarke & R. Kruger (Nepenthaceae), a new species from Cape York Peninsula, Queensland. *Austrobaileya* 7(2): 319-24.
- GBIF (Global Biodiversity Information Facility). 2013. GBIF Backbone Taxonomy, 2013-07-01. Accessed 30 June 2014. Available at: <http://www.gbif.org/species/1862363>
- IGARASHI, S. and FUKUDA, H. 1997. *The life histories of Asian butterflies*. Vol. I. Tokai University Press.
- LINNAEUS, C. 1753. *Species Plantarum* Edn. 1(2): 955.
- ROBINSON, G.S., ACKERY, P.R., KITCHING, I.J., BECCALONI, G.W. and FERNÁNDEZ, L. 2001. *Hostplants of the moth and butterfly caterpillars of the Oriental Region*. The Natural History Museum, London and Southdene, Kuala Lumpur.